# Preventive Health Services for Children and Youth Under Medicaid: Early and Periodic Screening, Diagnosis, and Treatment

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**January 1987**

Contractor Document
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U.S. Congress, Washington, DC

This paper was prepared by an outside contractor for the OTA assessment Healthy Children: Investing in the Future. The paper does not necessarily reflect the analytical findings of OTA, the assessment's advisory panel, or the Technology Assessment Board.

J 952-82

# THE EARLY AND PERIODIC SCREENING, DIAGNOSIS AND TREATMENT (EPSDT) PROGRAM

## Program Definition

The Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program is a Medicaid program of preventive and comprehensive services that States must make available to children and youth eligible for Medicaid.

EPSDT is a unique aspect of the Medicaid program. It is the only comprehensive and preventive services program mandated under Medicaid. It offers a systematic approach to health care, requiring States to take an active role in managing the delivery of five critical components: outreach; health assessment; diagnosis and treatment; case management; and support services. Eligibility for EPSDT generally matches the States eligibility requirements for Medicaid as a whole, with some recent exceptions made upon State request.[1] In addition, States have always had discretion over the amount, duration, and scope of services offered to children in the EPSDT program.

The development of the EPSDT program has been hampered by poor legislative design and slow implementation, due primarily to the fear on the part of Federal and State governments of high program costs (9,31). Although legislation establishing the EPSDT program was signed into law in 1967, EPSDT regulations did not take effect until 1972. Regulations were finalized shortly

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1 EPSDT rules and regulations are usually interpreted as requiring States to offer EPSDT services to all children eligible for each state's Medicaid program. However, recently HCFA has interpreted the regulations differently. Upon the inquiry of one state, HCFA told the state it was not required to provide EPSDT services to medically needy children (Personal communication with the Director of the Child Health Staff, Bureau of Program Operations, HCFA).

after the National Welfare Rights Organization sued the Department of Health Education and Welfare for non-compliance with the congressional mandate to implement State EPSDT programs.

Under the initial regulations, all States were required to provide early and periodic screening and diagnosis to ascertain physical and mental defects and treat discovered conditions. In addition, states were required to provide for eyeglasses, hearing aids, and other kinds of treatment for visual and hearing problems and dental care (16).

Further delays in State implementation led Congress to establish penalties against the States amounting to 1% of the federal share of funds from the Aid to Families with Dependent Children (AFDC) program. Much of the Federal oversight that followed was consumed in policing the States for compliance and exercising the penalties (9).

After 1980, the Administration tried to eliminate the program legislatively. The effort was rebutted by Congress. Then the Administration made efforts to weaken the program rules by proposing eegulations that no longer listed the specific tests and immunizations children should receive. These proposed regulations also would have relieved States of any obligation to encourage participation or to follow up on detected ailments (N.Y. Times 6/13/82).

In 1981, Congress repealed the penalty provision (OBRA-81), leaving no operative guidelines for the program. The Federal Government worked for four years with substantial input from the States to come to consensus on new regulations for the program. It was not until January 1985, that final regulations took effect to implement the legislative changes mandated by Federal law in 1981 and 1982. Program guidelines offering further definition of the regulations have still not been finalized.

The 1985 Federal regulations outlined seven components of the EPSDT program:

- All eligible families must be informed about the benefits of services available and how to obtain them, that they are without cost, and that transportation and scheduling help is available.
- Screening is defined as "regularly scheduled examinations and evaluations of the general physical and mental health, growth, development and nutritional status of infants, children and youth," meeting general standards of medical and dental practice. A minimum screening package must include:

  a. Comprehensive health and developmental history,
  b. Comprehensive unclothed physical examination,
  c. Appropriate vision and hearing and laboratory tests, and
  d. Direct referral to a dentist, beginning at age 3.

- Diagnosis and treatment must include immunizations (if needed at the time of screening) and dental, vision, and hearing care (including eyeglasses and hearing aids). States should set standards meeting reasonable medical and dental practice standards, generally within 6 months after request for screening services.
- Periodicity schedules are developed and implemented by States. They begin with a neonatal examination and specify screening services applicable at each stage of a child's life, meeting reasonable medical and dental practices standards.
- Continuing care provider arrangements are defined as agreements that States may make with providers to provide physicians' services as needed by a child for acute, episodic, and/or chronic illnesses; maintain a consolidated health history; provide care management; and provide dental care and transportation or scheduling assistance, or refer the child to the agency for those services. States monitor

continuing care providers' compliance with their agreements. For eligibles formally enrolled with continuing care providers, EPSDT requirements are deemed met by the State.

- Interagency coordination must be arranged with related programs to make available a variety of individual and group providers, refer recipients to needed services not covered in the State plan, and make appropriate use of related programs (e.,g. Maternal and Child Health; Head Start; Women, Infants, and Children (WIC); school health).
- Transportation and scheduling assistance must be offered by agencies and provided if requested.

## Program History

The regulations that took effect in January 1985, represent the fourth set of program regulations for EPSDT, they set the program off on a different tack. Earlier regulations were laden with documentation requirements to assure State compliance with the Federal mandate or face financial penalties. The development of these earlier regulations is attributable to the States' slow implementation of the program and the response of the Federal administration to the pressure of Congress and welfare advocacy groups.

In 1967, an amendment was added to Title XXX of the Social Security Act, mandating that States provide Early and Periodic Screening, Diagnosis, and Treatment for all Medicaid eligible persons under age 21. This Act of Congress transformed the episodic insurance scheme into a delivery scheme including outreach, treatment, and case management for american youth. It gave the Social Security Administration and Health Care Financing Administration the added responsibility of administering the delivery of health care services to the nations' young.

Congressional action on the EPSDT legislation was a culmination of a long series of actions that began in 1935 when Title V of the Social Security Act provided for limited child health programs such as Maternal and Child Health. In 1959, Federal matching funds made available to public assistance programs included some provisions for health care. The the Kerr-Mills Act followed, creating a Federal medical care program providing for the care of indigent and medically needy aged, and finally, in 1965, Medicare and Medicaid became available to the elderly and the poor (5:528).

National studies conducted after the implementation of these major initiatives found that 30% of 18 year olds were disqualified from military service due to health related disabilities; disability due to illness or accident was 50% higher among the poor than nonpoor; and 75% of retarded persons came from rural and urban slums. Thus the program, at time of enactment, marked one point in a forty year trend, a point at which preventive services were imposed on a national financing program for the health care of low income people (5:527).

## Program Admistration

The EPSDT program is jointly administered and funded by the Federal and State Governments primarily through the Medicaid program. The federal government is responsible for setting standard EPSDT program policy, monitoring State programs, and reimbursing States the Federal share of operational costs. State governments are responsible for the implementation of federal policy, tailoring policy further to meet the special needs of each State's eligible population and providing their share of the matching funds to finance the program.

Federal regulations or guidelines indicate how the EPSDT program should be administered at the State level. Most States interpreted the relationship between EPSDT and Medicaid to imply that the State Medicaid agency should administer the program. However, the administration of EPSDT programs cannot be generalized. States have developed EPSDT in accordance with the character of existing management structures at the State and local levels. States administer their programs in one of two ways; either Medicaid offices within State welfare/social services agencies oversee payment of providers and the organization of services, or Medicaid offices contract with Health Departments to administer the provision of services to eligible clients. In these States Medicaid reimburses the Health Department for the EPSDT services provided. Some States administer EPSDT programs centrally at the State level while others with decentralized social services programs delegate administrative authority for the program to the local level welfare, social services, or public health agencies.

Federal Modls for EPSDT Service Delivery

While the legislative mandate and the administrative regulations for the EPSDT programs do not require a particular organization of State management functions, the regulations embody requirements for the structure of the delivery of care and to a lesser extent, the content of that care to eligible children and youth. The standard program design before the 1985 regulations was one of organizing the fragmented system of preventive, primary, acute, and chronic care for low income children through mandatory education about available services and assistance in obtaining screening and any follow up care to those interested.

The 1985 regulations offer a second program design, "continuing care providers". In this model, fragmented health services are organized by enrolling recipients with one provider who can meet all of their care needs.

This provider, who agrees to care for a child, will be responsible for assuring that the child is informed of the services available; will provide assistance with obtaining needed care; or will provide the needed services. Method of payment (i.e., fee for service, capitation, prospective payment) is not included in the definition of continuing care providers under the 1985 regulations. While many States interpret the regulations as referring to Health Maintenance Organizations (HMOs), the regulations do not limit provider arrangements to these organizations.

The primary difference between the two models is that one provides the components of what must be present in a system: informing, outreach, screening, follow up care, and case management; while the second only provides the structure: one provider of care who will case manage services for recipients. Under the first design, several delivery structures can be constructed; outreach and case management can be provided by one agency and actual screening and follow up care by another; outreach and screening can be provided by the same provider and follow up by another; or any number of other combinations.

The second major difference between the two designs is the incentive present for States to implement the designs. Under the traditional EPSDT design, States must assure HCFA through reporting systems that all components are present in the system. Prior to 1986, States received a greater amount of Federal matching funds for administrative functions carried out by nonskilled professionals than they did for medical services provided under Medicaid. This situation provided some financial incentive for social service agencies to embark on outreach and case management initiatives for EPSDT eligibles. However, in 1986, this incentive was removed.[2] The incentive for States to

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2 Section 1903 (a)(2) of the Social Security Act, codified at 42 CFR 432.2, 432.5 and 433.15.

implement the continuing care provision is that HCFA will exempt tates from reporting requirements for Medicaid eligible children enrolled under such agreements. In this way States can potentially save administrative costs.

State Delivery Systems

Mandated to offer preventive and comprehensive services to Medicaid eligible children and youth, States are given great discretion in determining program eligibility requirements, what services they will offer other than those mandated, and how mandated components of care are organized. To illustrate how States are implementing EPSDT programs, State program characteristics are discussed below. Included are the mandated components of the Federal EPSDT program and other State program characteristics that address the goals of access to care, high quality preventive care to low income children, and the provision of comprehensive services.

Information on the characteristics of State EPSDT programs was obtained from telephone conversations with State officials and program documents primarily from the following five States: California, Mississippi, Michigan, Wisconsin, and North Carolina. These States represent a diverse group geographically, with differing trends in screening ratios over time and differing program goals. Information on certain components of other State programs gleaned from officials in those States or written documents is also included to provide a richer sense of the operational issues in EPSDT.

Providing Access to Care.--EPSDT is a voluntary program for Medicaid recipients. Legislative statute and program guidelines require States to inform clients of the program and its benefits. If interest is expressed, the State must help the recipient obtain the required services. Thus, the program attempts to gain greater access to preventive and comprehensive services for Medicaid recipients by convincing them of the benefits of preventive care.

This is not an easy task as preventive care is not usually a priority in low income families faced with concerns of unemployment, and adequate housing and food.

EPSDT program guidelines do not address the provider development aspects of access which States deal with in the Medicaid program. EPSDT providers need special attention as often many of them do not understand the importance of preventive measures.

States have implemented the elements of the EPSDT program which attempt to increase the access to preventive services for Medicaid eligible children and youth, but have also taken on other necessary components of the access problem, namely, provider recruitment and more targeted forms of outreach to those recipients who have been least successful at gaining access to the health care system.

Informing.--Federal law mandates that anyone eligible for Medicaid be informed of EPSDT services. The regulations specify that clear and nontechnical language must be used when explaining the benefits of preventive care and how services can be obtained. While earlier regulations had strict informing requirements about face to face informing, written notification of EPSDT services, and timeliness for accomplishing in the process, HCFA now requires that "generally" eligibles should be "effectively informed" within 60 days of eligibility determination.

States tend to meet federal informing requirements by having welfare workers explain EPSDT at the time of application for welfare. Some States then have screening providers follow up on eligibles in their areas or a subgroup of eligibles who express interest in EPSDT and attempt to schedule appointments for them.

HCFA reports that in FY 1985 all 50 States informed Medicaid eligible families at the point of intake for Medicaid and that 30 States used additional methods of informing and outreach. In North Carolina the Medicaid applicant is informed of EPSDT and if the applicant expresses interest, the eligibility worker will attempt to schedule an initial screen. In Michigan and West Virginia lists of all eligible children are compiled at welfare offices and sent to the local health departments nearest the applicants' residence for follow up. Mississippi eligibility workers inform applicants, document responses on an information system, and transmit the information to screening providers in the area. Screening providers will respond to interested families and schedule appointments within 30 days of eligibility determination. Similarly, in California local departments of social services explained the program to Medicaid eligibles at the time of application for welfare. If interested, the name of the recipient's physician, in addition to other identifying information, is forwarded to the local health department for follow up. This allows the local health department to inform the physician that the recipient should receive EPSDT services.

Outreach.--Some States have developed methods of outreach beyond the informing required by Federal regulations in order to assist Medicaid eligible to gain access to EPSDT services. Court cases in several of the largest States have resulted in standing orders that require implementation of certain types of enhanced outreach methods. Traditionally such remedies required local health departments to contact families by letter, phone, or home visits. Innovative interagency agreements have encouraged the recruitment of eligibles through related community agencies such as hospitals, Head Start, day care centers, preschools, and other levels of schools. Recently, some States have certified certain community agencies as screening providers to target hard-to-reach populations.

Independent of Federal requirements, Some States have recognized the need to develop a cadre of providers to participate in EPSDT to enhance outreach efforts, developing well-formulated provider recruitment methods.

The implementation of outreach methods has been severely affected by decreased funding of community education and outreach efforts. Cuts resulted from decreased State funding for family services workers and recently, from the reduced federal match for non-skilled professional medical personnel. Some States have been forced to limit funds used for reaching populations with the lowest access to care, while others limit outreach to those eligible who have expressed interest and/or those currently gaining access to other Medicaid services.

Nontargeted Outreach.--With little guidance from the Federal Government, States have experimented with various traditional forms of client outreach, (e.g., telephone contact, letters, and face-to-face). Some States have attempted to evaluate their effectiveness while others, having little support, abandoned these efforts when resources became more restricted.

Not only do outreach efforts vary by State, but in some States where the EPSDT program is administered by local agencies, the statewide variation in outreach approaches is great. In West Virginia, county case workers carry out varying methods of outreach. The State EPSDT coordinator pointed to one county where 95% of the children eligible for EPSDT were being screened. There, the case worker knows every eligible family and systematically reminds them of their screening and follow up appointments.

In Wisconsin, the Department of Health and Social Services contracts with local health agencies that who serve as case managers and screeners, to contact all eligible recipients. The case managers are reimbursed $15 per child screened for their outreach efforts. A State official explained that

the reimbursement is viewed more as a supplement to cover the cost of screening because there is essentially no way of assuring that a health department worker went to extra effort to see that the child came in for screening.[3] In addition, the Department of Health and Social Services contacts Medicaid eligible families by mail about the benefits under EPSDT. If the family is interested, the Department forwards names of EPSDT providers to them. In 1985 less than 5% of the eligible population requested further information from the Department (37:10).

In Massachusetts, a 1985 survey of the 57 EPSDT outreach workers indicated that 22-24 hours per week per worker are spent sending letters and making telephone calls to eligible families to inform them about the program. However, the survey results show that only 27% of EPSDT participants were enrolled through contact with an outreach worker (17). In contrast, a study conducted in the State of Maine showed that when families are informed through face to face contact in their own homes, less than 3% declined a screening appointment (12). Of course, the study did not follow those families requesting appointments to see whether or not they kept their appointments.

Both Michigan and North Carolina have suffered severe cutbacks in social services, and the number of community education workers has been reduced. During FY 1981, the State of Michigan cut the funding for family services outreach in the Department of Social Services budget and transferred responsibility for outreach to the local health departments who were not as familiar with the families eligible for EPSDT. Most likely, this change is what caused the

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3 Personal communication with Mr. Randy Colony, EPSDT staff, State of Wisconsin.

reduction in the proportion of eligible screened from 31% in FY 1981 to 18% in FY 1982.[4] The health departments use phone calls, letters, and home visits in various combinations throughout the State.

In North Carolina, all counties previously had full time EPSDT coordinators to organize outreach, screening, and follow up activities out of local health departments. Current budget constraints only allow funding for three counties to carry out outreach on a "pilot basis". Since 1979 these counties have increased outreach effort while evaluating their effectiveness with hopes of transmitting successful techniques to other counties in the State. However, the funding has been eliminated and any results will not be able to be replicated in other parts of the State. A State official who works with many rural health clinics in the State commented that clinics have tried various forms of outreach with limited funding and have had varying results. The clinics have resorted to screening children when they are being seen for an episodic event, even though the providers are aware of the limitations of screening results under those circumstances.

Targeted Outreach.--In California, counties set priority groups to target for EPSDT outreach. Los Angeles and San Bernidino Counties are planning targeted approaches for teens. In addition, in Los Angeles County outreach is done through maternity and pediatric units at hospitals where mothers are informed of the program and given lists of participating physicians in their area. The State has pinpointed foster care children as a group that will receive focused outreach in 1987. Other statewide initiatives in California include offering EPSDT services to all children in the Head Start Program and the State funded Preschool Program.

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4 Personal communication with Carlatta Deveraux, EPSDT staff, Michigan.

Chemung County, New York has set up a infant registry where mothers of Medicaid eligible newborns are notified about EPSDT and 80% to 90% enroll in the program.

The Wisconsin Department of Social and Health Services is currently proposing that they provide information on those children eligible for Medicaid who have not received any Medicaid services in the past year. Screening agencies would be reimbursed for outreach when these children have been screened. Minnesota and New York reported that they are mounting similar efforts.

Incentives to Obtain Services/Enroll Clients.--Many States require proof of immunization before a child can enter school. If children are referred to an EPSDT provider, they are often enrolled in the EPSDT program. This is likely to explain the high screening rates in the population of five-year-olds. California requires a physical examination a child is admitted to first grade. This enrolls low income children in EPSDT very effectively. The North Carolina legislature passed a similar law in 1986 which they hope will assist the State EPSDT enrollment. One county in California experimented with paying mothers to bring children in for EPSDT visits. It seemed to be very effective for getting children screened; however, the program was discontinued and was never completely evaluated.

Another method that night be used to increase program participation is to provide incentives to outreach workers to enroll children and to screening providers for successfully screening all eligible children in their practices. Mississippi splits reimbursement for outreach into 2 parts, health department case workers are paid $12 for counseling the family about EPSDT, appointment scheduling, and transportation assistance and then $6 when the appointment has been kept or when the client has been reminded a minimum of two times.

In most States providing well child exams outside of the State EPSDT system, reimbursement rates for EPSDT are set higher to encourage provider participation. Of the thirty five States reporting coverage of well child care under Medicaid outside of the EPSDT system in FY 1983, twenty five reported paying a higher rate for an EPSDT screening visit than a well child visit.

Other than reimbursing providers for an EPSDT screening visit at a higher rate than a well child exam, States did not report using any financial incentives to encourage providers to screen all the eligible children in his/her practice. The idea, suggested by a North Carolina State official, could potentially be very effective.

Provider Recruitment.--States have ascertained by trial and error that provider outreach is as important, if not more important, than outreach to program eligibles when attempting to provide access to care to low income children and youth. The EPSDT program in Pennsylvania reports that its client outreach efforts do not go beyond the Federal requirements. However, provider recruitment is done through contractors paid according to the number of screens that are billed by the providers they recruit (17).

Massachusetts found that while most of its EPSDT staff's time was spent on client outreach, 75% of the children and youth participated in the program because a provider they once visited was a participant. It also found that approximately 45% of the newly-eligible EPSDT clients reported having regular sources of medical and dental care. Given that eligible clients are not likely to change their source of care, the State chose to launch a more substantial effort to recruit clients' usual sources of care to the program (e.g., community health care clinics and physicians at outpatient departments of hospitals).

In California, case workers (usually employed by the local health department) visit physicians to inform them about EPSDT, agree to offer them assistance with the certification process and with billing forms when they start to screen patients, and may advocate on behalf of the providers if a problem develops with their reimbursement.

Program requirements can often be a disincentive to providers to participate in the program, especially if States also pay for well child services under Medicaid. For example, New York, California, and Michigan require providers to be certified by the State to participate in EPSDT. Providers in these States complain about the arduous process of certification and billing processes and often refuse to participate in EPSDT. Because these States also reimburse for well child care under Medicaid, providers maintain an avenue outside the EPSDT program for the provision and payment of preventive child care services. Unfortunately, these children will not be monitored under the EPSDT system and may not benefit from the potentially richer coverage of services physicians participating in EPSDT are likely to provide them because Medicaid EPSDT will reimburse for them. As mentioned previously, the counter incentive the States provide is a higher reimbursement rate for EPSDT screening. This counter incentive does not solve the problem in many cases. Some States have been very successful in enrolling providers in non traditional settings in order to target EPSDT services to clients with a history of poor access to care. While there are exceptions, generally, States allow any Medicaid provider to bill for EPSDT services. In some States only physicians can be Medicaid providers, while other States nurses may provide care as long as they are under physician supervision. Still other States allow non-physicians to be reimbursed for Medicaid services without supervision. From 1980 to 1981, Missouri provided on-site EPSDT screenings at job corps training

cites by certifying the on-site medical clinics as Medicaid providers. Currently, in St. Paul, Minnesota four fully staffed comprehensive high school health clinics are certified as Medicaid providers and can bill for services provided to eligible students (17).

Transportation and Scheduling Assistance.--Federal regulations require that the agency offer assistance to the family or recipient with arranging transportation and scheduling of appointments for services. Transportation services are seen as an important, but expensive form of outreach to eligibles. West Virginia reimburses recipients 17 cents a mile for traveling to screening appointments and finds it is helpful for clients to be able to offer even this partial reimbursement to neighbors. The other States interviewed provided transportation on an ad hoc basis and did not have money allocated for the provision of EPSDT transportation services as separate from the Medicaid transportation services which are shared among all recipients. Officials in North Carolina reported that scheduling assistance at the time of informing was very effective and they had found recipients had scheduled fewer appointments without the assistance.

Content and Quality of Care

Federal regulations do not directly control the quality of care provided under EPSDT; but by defining certain components of care that should be delivered such as screening and appropriate follow up services per professional determination, the regulations provide a certain amount of guidance in the assuring the quality of the care given. States have a great deal of flexibility when putting together a service package for the EPSDT program through the design of a periodicity schedule and the ability to add to the State plan benefits for EPSDT clients that do not have to be provided to other Medicaid eligible.

Screening.--Federal regulations require that the State agency provide eligibles with regularly scheduled examinations and evaluations of the general physical and mental health, growth development, and nutritional status of infants, children and youth. As a minimum, the screening must include:

1. a comprehensive health and developmental history,
2. comprehensive unclothed physical examination,
3. appropriate vision testing,
4. appropriate hearing testing,
5. appropriate laboratory tests, and
6. dental screening services furnished by direct referral to a dentist for children beginning at the age of 3 years.

Regulations also require that services must be provided in accordance with reasonable standards of medical and dental practice which the agency will determine after consultation with recognized medical and dental organizations involved in child health care.

Provider groups are in support of uniform standards for care under EPSDT. When the Administration proposed reductions in the requirements for screening in 1982, pediatrician groups contended that the health needs of children are basically the same and that there should be uniform national standards for immunizations and for the frequency and content of examinations paid for by the Federal Government.[5] However, States have not developed uniform periodicity schedules. The American Academy of Pediatrics (AAP) has adopted a periodicity schedule of minimum services that should be given at each age interval. The Academy is quick to point out, however, that the standards were developed from a model of children in stable families and should be used as a starting point for States. As of September 1984, the date of the last HCFA EPSDT Program Report, only three States, Massachusetts, Ohio and

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5 The New York Times, June 8, 1982.

Colorado, report schedules outlining the minimum services as defined by AAP. All other States use schedules with fewer services than is recommended by AAP (36).

States can reimburse for screening at any rate they determine. In FY 1983, screenings ranged from $8 in Montana to $62 in Minnesota; the median rate was $27 (36).

While no uniform standards exist across States, some States have not even developed uniform standards for EPSDT screenings within the State. A survey conducted by the Children's Defense Fund in 1985 found that of 45 State responding, 40 had developed provider standards to be used by all providers certified as formal EPSDT practitioners. Six States reported using no provider protocols at all. When asked about how providers are informed about specific guidelines for screening exams, at least 5 were using only a claims form listing the components of the exam (27:470).

In some situations screening can serve as a barrier to needed care. Some of the most common problems among children, such as dental problems, do not need screening and referral. States, such as Mississippi, allow recipients to see a dentist and bill the EPSDT program even when the problem was not detected in screening.

For many States, the Federal requirement to gain participation of professionals in the design of examinations forces them to bring providers into a program they were not well acquainted with before. Prior to 1985, regulations were less clear about the type of providers who should screen clients. States feel that the 1985 regulations state a clear intention for services to be provided by community providers who can provide more continuity of care to the participating children. For example, Michigan did not allow private providers to screen prior to the 1985 regulations. Upon acceptance of

the new regulations, providers were asked to assist in the development of the screening program and are now encouraged to participate in the program. Wisconsin has also developed a provider advisory committee for the revision of the provider manual which explains the program and contains the periodicity schedule.

Diagnosis and Treatment.--The originally proposed Federal EPSDT regulations of the early 1970s would have required States to provide all medically necessary diagnostic and treatment services for conditions disclosed during the screening process despite what is covered in the State's Medicaid plan. After opposition from the States based on projected costs, the Nixon Administration chose to limit the EPSDT enriched services package to vision, dental, and hearing treatment. The original statute contains no such limitation (27:454).

EPSDT recipients must be provided with services in the State Medicaid plan and must receive the following services when need is indicated by screening: a) diagnosis and treatment for vision and hearing defects (including eyeglasses and hearing aids), b) dental care at as early an age as necessary, and c) appropriate immunizations. If the need for immunizations is determined at time of screening, they must be provided at that time; otherwise, Medicaid will pay for a separate treatment at a follow up visit.

It is extremely difficult to determine what services are being provided as a follow up to EPSDT screens. Generally, States are not collecting that information at this time. States track the number of persons screened and sometimes the number of persons referred for followup care, but not whether they were actually seen and what treatment and cost resulted.

Vision, dental and hearing problems are by far the most common health problems found through EPSDT examinations. However, anemia, upper respiratory and developmental orthopedic/musculo-skeletal problems were also found to be common problems through EPSDT examinations (33).

It is hoped that the type of screening packages that States put together will uncover problems that can be handled in the local delivery system and paid for under the State plan. This area is in definite need of further research. Early evaluations prior to the redesign of the HCFA EPSDT database pointed to the importance of linking screening to diagnosis and treatment followup both in service delivery and in monitoring systems. To date, information systems are ill-equipped to monitor the full course of treatment received by EPSDT clients.

Timeliness.--Federal regulations give loose requirements for the amount of time the entire care process should take from eligibility determination to initiation of followup care. They require States to establish standards for the timely provision of EPSDT services which meet reasonable standards of medical and dental organizations involved in child health care. Further, a process must be in place to ensure timely initiation of treatment if required, again, "generally" within an outer limit of 6 months after the request for screening services.

Discretionary Services.--Under EPSDT, the Medicaid agency may provide for any other medical or remedial care by amending the State plan even if the State chooses not to provide the same services to other Medicaid eligibles. Thus, EPSDT gives States the flexibility to provide any range of services to children as followup to conditions uncovered in the screening process while not having to provide those same services to other Medicaid eligibles. Mississippi added coverage for orthodontia for repairing malocclusions but did

not exempt EPSDT recipients from limitations placed on hospital and physician coverage.[6] Mississippi is also initiating an adolescent counseling program that will follow up all youth 12 years and older in the EPSDT program. Counseling will be provided by a nurse at the local health departments and will encompass drug and alcohol abuse prevention, and family planning. Younger children discovered in screening as being at risk for being sexually active, will be referred for the service. Michigan provides all Medicaid eligibility groups under EPSDT the same benefits under the State plan, whereas services are limited to other, non--EPSDT "Medically Needy" eligibles. This allows "Medically Needy" eligibles in EPSDT to receive outpatient psychiatry, and orthodontia.

Again, HCFA does not track what services States have added under the program. Generally, States have not used the program to provide additional services to children beyond those mandated in the Federal regulations. However, many States (including Missouri, Connecticut, Michigan, Minnesota and California) are considering including new efforts in the area of teenage pregnancy under EPSDT.

Organization of Care/Delivery System Development

As has been noted before, States have been left to structure the delivery of preventive care services for children under Medicaid. Original legislation and regulations that were promulgated outline components of a system of care which some argue actually further fragmentes the already disorganized array of services available to low income families. Nevertheless, States complied with the regulations and developed a variety of delivery system models. The 1985 regulations offered the "continuing care" provider model

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6 Personal communication with Virginia Walker, EPSDT coordinator, State of Mississippi.

which several States already had in place for their AFDC eligible Medicaid population. More and more States who can invest in provider development for the Medicaid population are doing so and including EPSDT requirements in their agreements with providers.

Standard EPSDT Model.--States have developed EPSDT services using different combinations of providers and approaches to case management. As health departments were traditionally the place children were taken for immunizations in many communities, they became the screening providers for EPSDT in many States. The States of Wisconsin, Mississippi and Michigan primarily use local health departments as their screening providers. In Wisconsin, 70% of the screenings are performed by local health departments and the remaining 30% are provided by private physicians. In Mississippi the same ratio is experienced and in Michigan, 90% of the screenings are conducted by health departments, the remaining 10% provided by private physicians. Michigan has just begun to allow private providers to perform and be reimbursed for screenings in certain cases.

In California, North Carolina, and Massachusetts, private providers are the dominant type of screening providers. Generally, these States used the Medicaid agency connections with private providers as a base to recruit EPSDT providers. In California, 40% of the screenings are conducted by solo practitioners and 16% by group practitioners. Health departments conduct 18% and the remaining 24% are conducted by different types of primary care clinics. In North Carolina, 65% of the screenings are conducted by private providers and the remainder by local health departments.

In California, the Child Health and Disability Prevention program (which includes EPSDT but also some State-reimbursed children) pays two types of providers at different rates. The most common providers are what the State terms

"comprehensive care providers" which are private providers usually in group practices. Others are "health assessment only" providers, which tend to be head start clinics, school health clinics. Comprehensive care providers agree to provide screening, diagnosis, and treatment to Medi-Cal eligibles, and screening to State-funded clients. These are the physicians that health departments refer to.

Under the proposed Federal guidelines to the regulations effective in 1985, States must provide some assurance that clients will be assisted in obtaining necessary followup services resulting from screening findings. Some States have attempted to provide case management services that would increase the likelihood that eligibles would gain access to the delivery system. Often times the case manager is the outreach worker or the provider him/herself. States attempt to work with community-oriented people to enlist them in an effort to recruit children to the program as well as to assure the appropriate services once they are determined.

Wisconsin is attempting to link children up with primary care providers at the time of referral for followup care. Case workers will only refer to physicians who have agreed to perform screening services according to the State manual. The Health Department's responsibility for outreach and case management will be to provide outreach and initial screenings to children who have not received care in the past year. The department will then refer the children for any follow up care to an enrolled provider who will then provide ongoing care to them including subsequent screens according to the State periodicity schedule.[7]

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7 Personal communication with Randy Colony, EPSDT coordinator, State of Wisconsin.

In California, local case managers located in the health departments work on physician recruitment and physician maintenance as well as providing assistance to clients. Case managers locate and inform physicians about the program and assist them in becoming certified. Children will be referred to these providers and case workers will assist providers in processing claims and filing reporting forms. "Physicians see the case managers as advocates and this type of relationship is very supportive to the program."[8]

Case management in California also focuses on the most urgent problems detected in screening. Public health nurses in each county review screening results from claims forms on a routine basis. The most severe problems are followed up immediately to assure that treatment has been given. Referral physicians are called to assist the children's families in getting appropriate follow up care.

In sum, it is difficult to depict a "standard" EPSDT model of care. States have developed systems so different that it is almost impossible to discern common elements. In terms of programs meeting the federal standards for EPSDT under pre-1985 regulation, the common components are outreach efforts, some form of case monitoring and/or case management, screening, and followup care.

Continuing Care.--Federal regulations now permit States to disregard reporting requirements on the components of informing, outreach, and number of screenings if States make agreements with providers to provide a continuum of needed services to EPSDT eligible children. The recipients would enroll with a provider for screening, diagnosis, treatment, and referral for followup services. The provider would maintain the recipients' consolidated health his-

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8 Personal communication with State of California Child Health and Disability Prevention Program.

tory including information received from other providers. To be formally enrolled, a recipient or a recipient's family agrees to use one continuing care provider as a regular source of the described set of services for a stated period of time. Both the recipient and the provider must sign statements that reflect their obligations under the continuing care arrangement.

States have interpreted the regulations various ways. Some feel that only HMOs can be designated as continuing providers. Many think all HMOs are automatically continuing care providers because they enroll Medicaid children whether or not the State has contracted with HMOs to provide EPSDT services.

From HCFA reports, it appears that the numbers of "continuing care enrollees" States have been reporting are the numbers of Medicaid children enrolled in HMOs. As seen in Table 1, HCFA reports that in FY 1983, 20 States had a total of 594,152 Medicaid children enrolled in "continuing care arrangements". In fiscal year 1985, 23 States reported that 592,513 Medicaid children were enrolled. These reports were actually made prior to the finalization of the new regulations. In fact, State activity with HMOs prompted their inclusion in the new regulations.[9] States had been reporting HMO enrollees and claiming that, almost by definition, they were not set up to report procedures (i.e., no claims are generated in HMOs).

In North Carolina prepaid health plans are considered to be continuing care providers; however, they have no special agreement or contract to provide EPSDT services is the way described in the 1985 regulations. Mississippi claims that they cannot use the arrangements until HMOs are developed in the State; however, officials feel that managed care would assist their outreach and followup activities greatly.

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9 Personal communication with Child Health prevention Staff, Bureau of Program Operations, HCFA.

TABLE 1

CONTINUING CARE ARRANGEMENTS UNDER EPSDT
Fiscal Years 1983 to 1986

| STATE | #OF EPSDT ELIGIBLE ENROLLEES FY83[1] | FY85[2] | FY86[3] |
|---|---|---|---|
| Arizona | 0 | 74,352[4] | 58,751 |
| Alabama | 4,300 | 0 | 0 |
| California | 100,416 | 184,758 | 199,717 |
| Colorado | N/A | 10,924 | 38,084 |
| Connecticut | 0 | 248 | 308 |
| Florida | 1,830 | 7,339 | 9,612 |
| Hawaii | 1,742 | 0 | 0 |
| Illinois | 18,000 | 42,955 | 57,416 |
| Kentucky | 50,000 | 42,653 | 0 |
| Louisiana | 15,880 | 0 | 0 |
| Maine | 0 | 229 | 181 |
| Maryland | 127,200 | 0 | 0 |
| Massachusetts | 7,500 | 3,561 | 7,630 |
| Michigan | 80,150 | 72,651 | 113,323 |
| Minnesota | 4,359 | 3,901 | 7,031 |
| Missouri | N/A | 15,964 | 17,273 |
| Nevada | 0 | 806 | 1,412 |
| New Hampshire | 0 | 454 | 414 |
| New Jersey | 450 | 4,033 | 4,782 |
| New York | 17,000 | 14,091 | 25,773 |
| Ohio | 104,345 | 10,345 | 25,544 |
| Oregon | 2,500 | 4,668 | 11,828 |
| Pennsylvania | 7,136 | 6,211 | 13,084 |
| Rhode Island | 0 | 179 | 156 |
| Tennessee | 32,743 | 38,768 | 6,237 |
| Utah | 5,000 | 0 | 0 |
| Washington | 3,601 | 3,734 | 6,091 |
| Wisconsin | 10,000 | 49,689 | 81,697 |
| TOTAL: | 331,326 | 592,513 | 686,345 |
| # of states: | 20 | 23 | 22 |

[1]Health Care Financing Administration, Bureau of Program Operations, Child Health Prevention Staff, "EPSDT Program Report: Fiscal Year 1984", September, 1984, p.4.

[2]Health Care Financing Administration Bureau of Program Operations, Child Health and Prevention Staff, Interoffice Memo, January 8, 1986.

[3]Health Care Financing Administration, Bureau of Program Operations, Child Health and Prevention Staff, Unpublished data.

[4]Based on three quarters

California has the EPSDT requirements in all Medicaid contracts with HMOs. They request HMOs to give monthly totals on the EPSDT reporting forms, but few of them report statistics. Medicaid medical audits are performed on medical records of recipients enrolled in HMOs and EPSDT indicators are checked periodically.

Wisconsin began enrolling AFDC eligible Medicaid recipients in HMOs in 1983. The two counties where recipients are being enrolled constitute 40 of the population eligible for EPSDT in the State. The Department of Social and Health Services began requiring HMOs to submit information on the number of screenings they are performing in mid 1985 (37).

Table 1 further illustrates the confusion over the concept of "continuing care providers". State reporting has fluctuated greatly with States reporting large numbers one year and none the next. For FY 1986, the year that the 1985 regulations were finalized, 22 States report continuing care arrangements. Eight States reporting enrollees in FY 1983 did not report any enrollees and 10 States have added continuing care arrangements since FY 1983. Not only have States been added and subtracted to the list over this relatively short period of time, but the numbers of enrollees greatly fluctuate from year to year. For example, Tennessee was reporting enrollees for 1983 and 1985 of 32,000 and 38,000, then their numbers dropped to 6,237 in FY 1986. Similarly unusual changes occurred in Michigan, New Jersey, and New York. Unfortunately, the numbers shown provoke more questions than they answer in terms of what States are reporting as "continuing care arrangements". It appears that States are interested in using the designation and the waiver the arrangements allow for EPSDT reporting requirements.

The 1985 regulations set out an attractive option for States seeking to provide more comprehensive services to Medicaid children and be relieved of many of the EPSDT program requirements. The "continuing care providers" as

described in the regulations are not limited to prepaid group health plans, although it seems this is how States have interpreted the regulations. Actually, they would include the types of arrangements that California and Wisconsin have developed. California has "comprehensive care providers" and Wisconsin plans to use private providers for all the EPSDT services a child requires. The only difference with these approaches and the "continuing care providers" is that California and Wisconsin's arrangements are more informal with the providers. Both States express concern that the new regulations may be asking too much of private providers. Hopefully, federal guidelines for the new regulations will be finalized and that they will clarify the concept of "continuing care" so that States without HMOs who are interested in managed care for children's services can begin to utilize the new program flexibility in ways that benefit Medicaid children and youth.

Interagency Coordination.--Although EPSDT was intended to offer comprehensive care to Medicaid children and youth, there are many reasons why it does not. The program is based on Medicaid eligibility which means that there is the potential of a child losing eligibility before a complete treatment can be provided. It appears that, generally, EPSDT provides those services a State chooses to cover in its Medicaid state plan, with some exceptions. Therefore, a program that does not have a stable population to care for and is limited in the scope of treatment it can provide, cannot be considered comprehensive by any means.

EPSDT regulations state that interagency coordination must be arranged with related programs to make a variety of providers available and to be able to refer for other services not provided under a State plan. This is the piece that makes the regulations, at least on paper, provide a concept of comprehensive care. Some States have made good use of interagency cooperation to

provide services to Medicaid eligible children. The coordination with programs such as Head Start, Job Corps, and school health clinics for outreach and screening has already been discussed. In terms of financing followup care when a child is no longer Medicaid eligible or when a needed services is not covered by the State Medicaid plan, most State officials report that often providers will not charge or ask a nominal fee for follow up care. Few States have formal mechanisms for covering such treatment. For specific illnesses and/or disabilities Crippled Children's Services coordinate with EPSDT programs but coverage for such follow up care is generally handled on a case by case basis.

Program coordination at the State or local level is not always easy particularly if the programs have no cooperation at the Federal level. Often when coordination is achieved at the State or local level it is due to the commitment of particular administrators. Unfortunately, when the administrators change the coordination is not likely to continue. The Missouri statewide program that coordinated Job Corps with EPSDT is one example of the agency coordination process. Included in the Federal Job Corps Training Program was a provision for medical clinics at or near the training sites. The EPSDT administrator and the State Job Corps administrator came up with the idea of coordination between the two programs at an informal meeting in a State office building. It was later determined that many of the job corps participants were Medicaid eligible and that Job Corps had been paying for medical services out of their limited budget. These Job Corps participants were then entered into the EPSDT monitoring system and could be followed for necessary screening and follow up whether they left Job Corps and started their first job or if they did not complete Job Corps. In 1981, the State changed Medicaid eligibility requirements making many Job Corps participants

ineligible. Later that year the Job Corps administrator who had initiated the coordination left; her successor did not continue the coordination and resumed payment for all Job Corps medical payments out of the program budget.

The example of the Missouri Job Corps/EPSDT experience illustrates the difficulty of EPSDT program managers with one of the program's primary mechanisms for providing comprehensive care, interagency coordination. The success of the program in providing comprehensive care depends to a large degree on elements that managers have little or no control over such as Medicaid eligibility and the ability to coordinate with other providers who can provide needed services that EPSDT cannot pay for.

Conclusion

This section has described how the EPSDT program is implemented at the Federal level and provided examples of how program provisions are being implemented in the States. By examining the program components as provided for in the regulations, we have exposed the States' difficulties in meeting the programs goals within the program design. States have, for the most part, been left alone to develop their services without much encouragement or assistance from the Federal government over the past five years. Generally, States seem to have concentrated on developing screening programs and more recently, on enrolling Medicaid children in HMOs. These are also the aspects of the program most clearly delineated in the Federal regulations and reported on by the States to HCFA. States have also developed interesting methods of provider recruitment and client outreach. The most effective methods appear to have been developed without Federal assistance, although very little evaluation has been done.

## Program Accomplishments

The EPSDT program mandated by the Federal Government to be administered by the States requires that States provide accessible preventive and comprehensive health services to Medicaid eligible children and youth. Federal guidelines required that specific design of client outreach and minimum elements be contained in screening programs. Other program aspects such as State administration, organization of the delivery system, provider recruitment, and content of a benefit package were left up to the States with minimal guidance from the Federal Government. In the years since the enactment of EPSDT, States have tried to balance budget pressures with their attraction to the inspiring goals of the program and, as a result, tended to design programs that met at least the minimum Federal requirements.

Given the context of the program's difficult course of implementation it is not surprising that studies providing meaningful evaluations of the program are few and far between. In order to assess program accomplishments, this section examines the available program data and reviews evaluations of program effectiveness in terms of: 1) increasing access to preventive services, 2) the actual services provided under the program, and 3) available information on cost effectiveness.

### Assessing Program Impact on Access to Care

Difficulties in Measurement.--One of the primary goals of the EPSDT program is to improve eligible children's access to preventive services. We have seen that States have designed a variety of methods to attract clients to the services. Several factors must be taken into account when attempting to assess these efforts. The aspect with perhaps the greatest effect on access to EPSDT is Medicaid eligibility. The ability of the EPSDT program to reach many children is hampered by transient eligibility status, since over the course of

one year, one third of the Medicaid population will be covered for only a portion of the year (4:496). Therefore, measuring the effect of outreach for all children eligible for Medicaid during the year is inaccurate unless one adjusts for the length of time children are enrolled. Children's Defense Fund claims that assuring access to care in a program with such unstable eligibility is virtually impossible (27:462). Perhaps outreach in EPSDT must be judged by the ability of the program to provide access to those Medicaid eligibles who will remain eligible for at least one year. Without adequate information on the average length of children's eligibility on Medicaid per State and the range of time needed for successful outreach to various subgroups of children, it is difficult to evaluate EPSDT.

Another aspect of access that will impact the effect of any outreach intervention is the extent to which Medicaid eligible children have regular sources of care. The presence of a usual source of care is likely to reduce outreach effectiveness as clients may choose to see their usual source for all their Medicaid services. A client may not express interest in making an EPSDT appointment if given the option of providers because he/she feels that he/she has a provider whose services are needed. In fact, 90% of the Medicaid population covered for a full year report having a regular source of care and 87% of the Medicaid population covered only part of the year report having a regular source of care (4:498). To a large extent, this should be dealt with by the design of the outreach effort if a State is involved in provider recruitment. Although not part of the Federal program, States have found provider recruitment essential for effective outreach, especially with providers already caring for Medicaid clients.

A related difficulty that should be taken into account is the fact that providers provide "equivalent care" or non-EPSDT well child care under Medicaid. As mentioned previously, often State Medicaid programs will reim-

burse for well child care apart from the EPSDT program. In fact, 32 States report that they cover preventive services under Medicaid outside the EPSDT program (27:466). These services, while not monitored as EPSDT may, in fact, be rendered in accordance with standards similar to EPSDT. Using Medicaid tape-to-tape data from the Michigan Medicaid Information System, Rymer found that 7% of physician and ambulatory care visits reimbursed by Medicaid for children on AFDC in 1983 were for routine infant or child check-ups (28:VII-12). This factor will have the effect of under representing the number of Medicaid eligibles receiving preventive services as a result of outreach efforts.

Because States use different periodicity schedules and may change their periodicity schedules over time, it is difficult to attribute changes in the numbers of EPSDT recipients among States or within States to outreach efforts versus differences or changes in periodicity schedules.

Screening Ratios

Given these caveats, the impact of outreach efforts is monitored by HCFA using "screening ratios". The screening ratio is the ratio of the number of screenings (duplicated recipients) reported by State per length of time (quarterly or annually) to the average monthly number of children eligible for Medicaid. This statistic states the number of screening visits per eligible population, which overstates the number of children actually served. A slight improvement is the ratio of unduplicated screening recipients to children receiving Medicaid. This statistic gives the portion of children receiving Medicaid who received EPSDT screens. This will overstate the portion of the program population served as it is not based on number of eligibles but it is based on unduplicated counts of EPSDT recipients. Use of either statistic will overstate impact of outreach. When attempting to apply current measures

of program impact to assess access to care, the effect of the data elements used, the provision of equivalent care, the varying length of eligibility, and periodicity schedules used should be addressed.

An early Department of Health, Education and Welfare (HEW, since replaced by HHS) description of EPSDT reports statistics on children served for fiscal year 1974, the second year after final regulations took effect for the program. That year, 1.3 million screenings were provided to an estimated 9.7 million eligible children nationwide representing .13 screenings per Medicaid eligible child (32). HCFA reports that during fiscal year 1986, 2.7 million screenings were provided to approximately 9.3 million eligible children, or .29 screenings per eligible child (34). Assuming that counts of the number of screenings are comparable, a 16% increase in screenings was experienced over the last twelve years of the program, increasing at an average of rate of 1.3% per year.

The observed 16% increase in screenings does not substantiate a claim of outreach effectiveness. Because the number of screenings are duplicated counts, the increase could be a result of an increase in the number of screenings reimbursed per child under State periodicity schedules, unrelated to the effectiveness of outreach efforts,

Table 2 displays available data from HCFA 2082 State reports. Ratios represent the portion of Medicaid recipients receiving EPSDT screenings. Aggregate variation during the program's recent years is very small. To show the extent of interstate variation, similar data for five States are also shown. Given the difficulty of using the measures as accurate estimates of the effectiveness of outreach, looking at trends in ratios over time is more useful. Taken together, these two comparisons (percent change in screenings performed between fiscal years 1974 and 1985, and percent of Medicaid recipients receiv-

Table 2.--Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) Program Recipients Screened and Expenditures Incurred, FY 1981 thru FY 1985

| | FY 1981 | FY 1982 | FY 1983 | FY 1984 | FY 1985 |
|---|---|---|---|---|---|
| Recipients screened | 1,969 | 1,806 | 2,169 | 1,852 | 1,902 |
| <6 years old | NA | NA | 960 | 1,147 | 1,209 |
| 6-20 years old | NA | NA | 1,209 | 705 | 693 |
| Medicaid Recipients | 10,945 | 10,997 | 9,509 | 9,980 | 10,296 |
| <6 years old | NA | NA | 3,360 | 4,153 | 4,396 |
| 6-20 years old | NA | NA | 6,149 | 5,827 | 5,900 |
| EPSDT expenditures (in thousands of dollars) | 67,084 | 71,919 | 84,162 | 78,126 | 85,014 |
| EPSDT Expenditures as % of total Medicaid dollars spent on elibibles | NA | NA | 2% | 1% | 1% |

ABBREVIATIONS: FY - fiscal year; NA - not applicable
SOURCE: HCFA 2082 Reports.

ing EPSDT from fiscal years 1981 to 1984) suggest that outreach may have been more effective in the mid to late 1970s, as the program was initially being implemented, than in more recent years.

The variation in Table 3 among State ratios is difficult to interpret, as State programs differ on the basis of eligibility, services covered in state plans, provider availability, and Medicaid funding priorities. For example, Mississippi has the highest ratio of Medicaid recipients receiving EPSDT among the five States examined and Wisconsin has the lowest. Medicaid programs in the two States are very different. The portion of Medicaid recipients under the age of 21 in the two States differ. Thirty-three percent are under 21 in Wisconsin and 44% are under 21 in Mississippi. The higher ratio of children on Medicaid in Mississippi may lead the State agency to place higher priority on EPSDT services than Wisconsin does.

Eligibility standards in Wisconsin are much more "generous" (i.e. a greater number of persons with incomes under the federal poverty line are eligible for AFDC) than in Mississippi (35:61). This may mean that because of their lower incomes, eligible families in Mississippi may have a greater need for services than families in Wisconsin. In fact, we find in fiscal year 1982, recipients in Mississippi used 2.7 physician visits per recipient compared to Wisconsin recipients who used 1.5 visits per recipient (35:86). Differing eligibility standards may also mean that eligibles in Mississippi, having lower incomes, may have less of a tendency to go on and off eligibility when compared to Wisconsin eligibles who are of higher income. Being on Medicaid longer would give Mississippi eligibles a longer time period to receive EPSDT services.

One final potential explanation for the difference between the ratios in the two States is that Wisconsin reimburses providers for well child care under Medicaid as well as under EPSDT. This may mean that any outreach to the

Table 3.--Percent of Medicaid Recipients Screened for Selected States, FY 1981 thru 1984

Medicaid Recipients Eligible for EPSDT:

| Year | Selected States | | | | |
|---|---|---|---|---|---|
| | California | Michigan | Mississippi | N.Carolina | Wisconsin |
| FY 1981 | 1,612,800 | 496,086 | 146,175 | 170,142 | 219,040 |
| FY 1982 | 1,717,880 | 695,669 | 135,069 | 163,533 | 247,379 |
| FY 1983 | 1,515,720 | 712,829 | 126,845 | 157,730 | 241,794 |
| FY 1984 | 1,589,080 | 716,266 | 132,570 | 147,550 | 292,025 |

Percent of Medicaid Recipients Screened:

| | | | | | |
|---|---|---|---|---|---|
| FY 1981 | 19% | 31% | 45% | 33% | 20% |
| FY 1982 | 20% | 18% | 51% | 30% | 11% |
| FY 1983 | 28% | 16% | 54% | 32% | 9% |
| FY 1984 | 28% | 15% | 54% | 33% | 7% |

SOURCE: HCFA 2082 Data.

Medicaid population in Wisconsin for EPSDT may benefit clients seeking similar care from their usual source of care who may bill Medicaid for well child visits under Medicaid instead of EPSDT. Given all the differences in State Medicaid programs, it is difficult to compare EPSDT screening ratios across States.

Comparing the different State ratio trends can give an indication of program changes and/or development. When trends were discussed with State officials, it was clear that often changes in program effort were in tandem with changes in the screening ratios. For example, a State official in Michigan discussed a change in local administration of the program outreach function from social services agencies to local health departments in calendar year 1981. The drop in screening ratio may be attributable to the change because health personnel had to be trained and to a large measure were asked to do outreach along with their preexisting job duties. While State officials in California gave no evidence of significant program changes between fiscal years 1982 and 1983, they did explain targeting additional providers and groups of EPSDT eligibles each year.

While looking at single State trends in screening ratios may be useful to assess overall State actions, highlighting dramatic changes in State programs, this technique is also limited. Just as the national screening ratio veils State variation, State ratios veil local level variation. Wisconsin county screening rates vary from 2.5% to 24.5%. Screening rates within Massachusetts ranged from 3% to 31%.

It is difficult to measure the success of EPSDT outreach using measures available at the national level. In some respect, screening ratios overestimate program impact while in other ways they underestimate progress. What can be said about the effort is that in 1985, 1.9 million children received

screening under EPSDT. The number has not changed dramatically since the program's inception and particularly not during the time period 1980 to the present. Variation btween States is tremendous as is variation within States. Given that EPSDT has such a tremendous number of factors that can vary State to State, it seems almost impractical to use aggregate program data for anything more than getting a "sense" of the program.

Studies of Improved Access to Children's Services Under Medicaid

As the analysis of screening ratios has shown, any study attempting to assess improved access under EPSDT is extremely difficult, particularly when using national data. There have been no definitive studies which show that EPSDT has actually increased access to preventive services for low income children.

A recent study based on the 1980 National Medical Care Utilization and Expenditure Survey (NMCUES) measured the use of preventive services by Medicaid recipients and low income children (those with incomes at or below 150% of the federal poverty level). The sample consisted of 1,722 children who maintained a constant insurance status for a full year. The study found that children with Medicaid coverage did not receive significantly more preventive care than the children in the uninsured group. Further, the study found that the middle income enrollees in HMOs (an insurance category included to represent a group not faced with paying for preventive services) used preventive services significantly more than the Medicaid recipients. This analysis provides no evidence that the EPSDT program has promoted utilization of preventive care among Medicaid children to levels beyond those realized by their uninsured counterparts (1:101).

Another study found that Medicaid children participating in the EPSDT program have achieved immunization levels of 82% compared to the State average of 68.6% for all Michigan children (Taylor in 19:51).

An earlier study that looked at the EPSDT programs in Connecticut and Vermont between 1968 and 1975 concluded that the Medicaid system is a weak instrument to stimulate States to increase preventive services to children. The study found that prior to the implementation of EPSDT, almost all Medicaid services were for acute and episodic care. Many of the children who received EPSDT upon implementation had been served earlier through free clinics and that screening services were likely to be used at the highest rate in those areas in the States that had established MCH clinics (8:12).

In summary, while EPSDT has provided screening services to millions of children, there is a dearth of evidence that current methods of outreach have significantly increased low income children's access to preventive services. Clearly, EPSDT's implementation has been so variable that a variety of well designed studies on the local level will be useful in showing if and how EPSDT can increase the use of preventive health services.

Effectiveness of Screening, Diagnosis, and Treatment Services

During the early years of the program the Federal Government made a major investment in demonstration projects designed to explore the most effective methods of service delivery as well as the overall effectiveness of the program. There have been several evaluations done of the projects; most agree that the data on the range and number of conditions strongly suggest that the projects were successful in uncovering unknown and/or untreated conditions requiring care. Further, the evaluators claim that the provision of new information on the need for preventive child health services and the success of EPSDT in meeting these needs resulted from the projects despite methodological problems in the data (24:237).

Other studies have attempted to show program effectiveness using data from existing programs. Using a quasi-experimental design with complicated adjustments for threats to internal validity, researchers evaluated the impact

of the Pennsylvania EPSDT program on children's health outcomes. The study employed both cross sectional and longitudinal observations on a sample of 1,831 children. The experimental group included children who had been screened at least twice in the program and was compared to two sets of control groups who had been screened only once. The experimental group experienced approximately 30% fewer abnormalities upon rescreening than at their initial screen. When comparing the experimental group to the control groups, the same difference was found. The control groups had approximately 30% more abnormalities than the experimental group did on their second screening (11).

Another study based on data from the Michigan EPSDT program also looked at the program's effect on health outcome, measuring improved outcome by the number of referrals for suspected problems at time of rescreening. The analysis used referral rates and indicated that those children with more lifetime screenings tended to have fewer referrals for suspected problems. The cumulative decrease in referrals was 18.35% from first to fourth screening (13).

Despite the difficulty with research design, these studies seem to indicate that the screening programs themselves can be very effective in uncovering previously unknown health problems which, if treated, can be resolved. However, an effective screening technique cannot improve health outcomes without effective outreach and coordination with treatment services.

Research has shown that the coordination of follow up services for health problems detected in screenings is a weak aspect of the EPSDT program. A survey of eight States and Puerto Rico during the period 1976-1977 showed that 78% of the children examined received initial treatment for at least one problem, while 72% received treatment for all of their problems. As expected, State performance varied greatly: from 87% in Pennsylvania to 55% in Tennessee (10).

The Select Panel for the Promotion of Child Health observed in their report to Congress in 1980 that effective prevention is often a matter of how services are organized as well as whether an effective technique is used. As an example, the panel cited a study comparing PKU screening efforts in the U.S., U.K. and Ireland that found despite identical clinical testing techniques in the three countries, diagnosis is more likely to be missed in the U.S. and treatment delayed because of inadequate coordination between inpatient and outpatient health care and inadequate followup of young infants in the community (Starfield cited in 36).

Cost Effectiveness

Passage of the EPSDT legislation in 1967 was based on the premise that the provision of screening, diagnosis, and medical treatment to poor children was cost effective. The premise was never completely tested. There are two aspects of cost effectiveness to be considered in evaluating EPSDT. The first is the long term value of the preventive health services under EPSDT and the other is the cost effectiveness of EPSDT as a system of care. In the first case, certain specific preventive services such as PKU screening and vaccines have been shown to be cost effective in the long run. However, in evaluating such a broad reaching program as EPSDT it is extremely difficult to show long run cost effectiveness. Evaluations of EPSDT as an cost effective system of care have been carried out on a small scale but almost all suffer from selection bias (response to EPSDT services can be attributed to a self-selected population which differs from the eligible population).

Several States claim cost savings from the EPSDT program comparing use of traditional Medicaid services by children receiving EPSDT and children not using EPSDT programs. A recent report from Ohio showed a reduction of in-

appropriate emergency room use by EPSDT participants from 29% in 1984 to 24% in 1985 during a time of increased education to EPSDT clients on the proper use of the emergency room (21).

The study referred to earlier using Michigan program data compared the mean medical costs for non-EPSDT participants and all EPSDT participants in the sample. The costs for participants were nearly 13% lower. When the cost difference is adjusted for EPSDT program costs, the difference decreased to 7% (13). As noted earlier, comparisons between EPSDT users and non-users are subject to selection bias and must be evaluated in that light.

In summary, while several studies suggest cost effectiveness of the overall program in the long and short run, at present there are no studies which adequately evaluate the cost effectiveness of EPSDT as a model for the delivery of preventive health services. As States increasing their use of "continuing care providers" studies should be done comparing the costs of the different delivery models set up under the EPSDT provisions.

Conclusion

In this section we have discussed the available data and studies on the EPSDT program. The body of knowledge on preventive care for children indicates that specific screening and followup services can improve health outcomes, however, effective techniques do not guarantee positive outcomes. The available evidence does not seem to show that EPSDT has significantly improved access to preventive care for low income children or that the program has provided for complete treatment of health problems uncovered in screenings. In a review of studies of the effectiveness of preventive child health care which attempted to assess both what is known of the effectiveness of specific interventions and the effectiveness of broad prevention programs such as EPSDT, Shadish (29) writes:

> A major focus of future research ought to be the implementation of preventive care. Many times when prevention seems to fail, it was actually never delivered. The challenge is to identify at what point implementation of the treatment fails, and then to identify how that situation can be remedied.

This is certainly the case of the Early and Periodic Screening, Diagnosis, and Treatment Program. Often cited as a failed dream, the program promised increased access to a system of care that would improve the health outcomes of America's youth. To date, the program has experienced neither adequate implementation nor have its methods or concept faced rigorous evaluation.

## Conclusions

The Early and Periodic Screening, Diagnosis, and Treatment program is a unique aspect of the Medicaid program. It is the only federally mandated preventive care program under Medicaid. The program goal, to provide preventive and comprehensive care to all eligible children is laudable, unfortunately, the program has been fraught with problems from its inception. The original legislation never fully developed the program concept and vague promises being made by Congress made the States and the Administration fearful of high program costs. Implementation was delayed until legal action was taken at the Federal and State level by public interest lawyers. To speed the process further, Congress levied financial penalties against States failing to meet implementation targets. While States have differing opinions about the fairness and effectiveness of the penalties in the program's early years, a consensus was finally reached among State representatives and advocacy groups to remove them and instead deregulate the program, correctly structuring incentives for desirable program outcomes.

It is difficult to assess the program independent from the Medicaid program as so many of the program parameters are defined by Medicaid such as eligibility, services offered, and administrative effort. Future assessments of the program should identify what EPSDT can conceivably accomplish within the Medicaid program. Upon close examination, one sees that given the constraints of Medicaid, EPSDT cannot alone meet the goals set out for it in the original law. To provide continuity of care, eligibility must be more stable and services included more complete and coordinated.

Recent program changes in EPSDT and Medicaid give States increased flexibility to structure the financing and delivery of services to children and youth as they think appropriate. States are not likely to use the increased flexibility to accomplish the broad goals of the EPSDT program. Instead, States are considering strategies that target resources to those children and youth at highest risk, where they will have the greatest impact on reducing health care costs and improving health outcomes.

Given the current situation of increased program flexibility and decreasing State Medicaid budgets, program monitoring is very important. Unfortunately, there is not much monitoring of the EPSDT program at the federal level. Measures are inadequate to determine effectiveness and the necessary data is unavailable. In particular, Federal and State Governments should be developing methods of monitoring the quality of care under the "continuing care arrangements" allowed under the most recent EPSDT regulations. Otherwise, litigation similar to what occurred under earlier EPSDT regulations when implementation was being delayed is likely to result.

State program administrators seek more technical assistance and support for EPSDT program development. Most State officials contacted for this study described the current attitude of the Federal government as one of "benign

neglect" toward the EPSDT program. Regional offices seem no longer concerned about the program and cannot be responsive to States with requests for assistance. Further, State officials expressed the need to share program experiences with other States to gain much needed insight to effective methods of outreach, case management, provider recruitment and retention, information systems development, client compliance, and program monitoring. The available aggregate program statistics are almost useless to program administrators; however, information on other States' successes and failures with the program would be very beneficial.

The EPSDT program has suffered greatly from poor design and inadequate implementation. However, the program has allowed almost 18 years of experimentation in the provision of preventive services to low income children and youth. This rich and varied program experience is excellent groundwork for improved preventive systems of health care.

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